

U.S. Application No. 10/649,028
Reply to Office Action dated November 27, 2006

PATENT
450100-04702

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) An optical system controller for a video camera, comprising:
 - a lens barrel having therein a movable optical system including a zooming lens, a focusing lens, and an iris diaphragm;
 - movable mechanisms for focusing control, zooming control, and aperture control, said movable mechanisms being arranged around the lens barrel;
 - a control means that controls the driving of said movable mechanisms for focusing control, zooming control, and aperture control;
 - a first, second, and third optical display means that are arranged near said movable mechanisms for focusing control, zooming control, and aperture control which are arranged around the lens barrel;
 - a first, second, and third detecting means to detect respectively the position of said focusing lens, the position of said zooming lens, and the opening of said iris diaphragm which change in the lens barrel;
 - a first display control means that causes said first optical display means to make a display in response to the position of the focusing lens which has been detected by said first detecting means;

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a second display control means that causes said second optical display means to make a display in response to the position of the zooming lens which has been detected by said second detecting means; and

a third display control means that causes said third optical display means to make a display in response to the opening of the iris diaphragm which has been detected by said third detecting means,

wherein the first optical display means is arranged along said focus adjusting movable mechanism, the second optical display means is arranged along said zoom adjusting mechanism, and the third optical display means is arranged along said aperture adjusting movable mechanism.

2. (Original) The optical system controller for a video camera as defined in Claim 1, wherein the first optical display means is arranged in the vicinity of the focus adjusting movable mechanism, the second optical display means is arranged in the vicinity of the zoom adjusting movable mechanism, and the third optical display means is arranged in the vicinity of the aperture adjusting movable mechanism.

3. (Currently Amended) The optical system controller for a video camera as defined in Claim 1, wherein each of the focus adjusting movable mechanism, the zoom adjusting movable mechanism, and the aperture adjusting movable mechanism is arranged along a ring encircling the outer surface of the lens barrel, ~~and further the first optical display means is arranged along said focus adjusting movable mechanism, the second optical display means is~~

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~~arranged along said zoom-adjusting mechanism, and the third optical display means is arranged along said aperture-adjusting movable mechanism.~~

4. (Original) The optical system controller for a video camera as defined in Claim 1, wherein each of the first, second, and third optical display means makes a display by emitting color light.

5. (Original) The optical system controller for a video camera as defined in Claim 4, wherein each of the first, second, and third optical display means is composed of a plurality of light-emitting elements arranged in array.

6. (Currently Amended) The optical system controller for a video camera as defined in Claim 5, wherein each of the first, second, and third optical display means excites part of the light-emitting elements at a specific position which varies depending on the focus lens position detected by the first ~~detection~~-detecting means, the zoom lens position detected by the third ~~detection~~-detecting means, and the aperture opening detected by the third ~~detection~~-detecting means.

7. (Original) The optical system controller for a video camera as defined in Claim 6, wherein each of the first, second, and third optical display means excites the light-emitting elements in such a way that those which are at the ends thereof emit light differing in color from the remaining ones.

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8. (Original) The optical system controller for a video camera as defined in Claim 1, wherein the drive control means includes a first optical drive means which moves the zoom lens in the direction of the optical axis in response to the action of the zoom adjusting movable mechanism or the zoom adjusting control signal from outside, a second optical drive means which drives the iris diaphragm in response to the action of the aperture adjusting movable mechanism or the aperture control signal from outside, and a third optical drive means which moves the focus lens in the direction of the optical axis in response to the action of the focus adjusting movable mechanism or the focus adjusting control signal from outside.

9. (Currently Amended) The optical system controller for a video camera as defined in Claim 1, wherein the first, second, and third ~~detection~~detecting means issue respectively the first detection output signal which denotes the position of the focus lens, the second detection output signal which denotes the position of the zoom lens, and the third detection output signal which denotes the opening of the iris diaphragm, and further the first display control means actuates the first optical display means in response to the first detection output signal, the second display control means actuates the second optical display means in response to the second detection output signal, and the third display control means actuates the third optical display means in response to the third detection output signal.